

## Dermoptera and Orthoptera Found in the Vicinity of Miami, Florida, in March, 1915—(Part 1).

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(Plate XVIII.)

From the 3d to the 16th of March, 1915, the author was in Miami, Florida, during which time collecting was only undertaken part of each day, but special efforts were made to secure material of the least known forms. In this way, while a mere representation of the well known species was taken, certain particular areas were very thoroughly and repeatedly investigated and several most interesting facts were thereby ascertained. A series of 654 specimens was taken, which material is now in the Hebard Collection.<sup>1</sup> This series represents 72 forms of which 2 are new and 5 previously not known from southern Florida, 2 of these latter constituting first records for the United States.

The region under consideration is divided into a number of distinctive areas, of which the "hammock" and the red mangrove swamps received the most thorough investigation. The facts concerning the various areas may be set forth as follows:

### "HAMMOCK."<sup>2</sup>

The heavy jungle areas, called in the vernacular "hammocks," and small areas of which, scattered through the pine woods of this region, are generally known as "banana-holes,"<sup>3</sup> contain a number of most interesting species of Orthoptera, particularly of the tropical forms. Individuals of these are, however, almost without exception very scarce and certain spe-

<sup>1</sup>In addition, 22 other specimens from this region are here recorded. Mr. Rehn and the present author have already recorded 4481 specimens of Orthoptera from central and southern Florida. (1905. Proc. Acad. Nat. Sci., Phila., 1905, pp. 29-55; 1912. Ibid., 1912, pp. 235-276; 1914. Ibid., 1914, pp. 373-412, and 1914. Jour. N. Y. Ent. Soc., XXII, pp. 96-117. The great majority of this material is in the Hebard Collection and that of the Academy of Natural Sciences of Philadelphia.

<sup>2</sup>One of the most extensive "hammocks" in southern Florida was particularly investigated; this is Brickell's Hammock, which occupies several square miles of territory between Miami and Coconut Grove and is readily accessible from the former place.

<sup>3</sup>See J. W. Harshberger. Trans. Wagnier Free Inst. Sci., Phila., VII, p. 101. (1914.)

cies can only be secured after repeated and long-continued investigations with trowel and beating net. The interesting species of the Tettigoniidae found here were, at this time of year, without exception in the earlier stages of immaturity. Under the bark of certain lofty trees growing in this hammock, particularly *Exothea paniculata* and *Coccolobis laurifolia*,<sup>4</sup> a number of very interesting forms were found hidden during the day. These could best be collected by tearing loose patches of bark off with a trowel and holding a beating net beneath at the same time. Six molasses jars were placed in this hammock, but little material was secured in this manner. During this visit unprecedentedly cold weather was encountered which made night work either unsatisfactory or wholly out of the question. In warm weather this method would certainly prove one of the readiest means to secure a number of the desirable species.

#### MANGROVE SWAMPS.<sup>5</sup>

These areas were found to be by no means as barren of Orthoptera as we had supposed. Two peculiarly Antillean species of Gryllidae were found in and along their borders and, in addition, an undescribed species of this family was found in the deep shade among the mangrove roots. A very few specimens of other species of Orthoptera were encountered in this environment, while everywhere above in the foliage of the mangroves a Gryllid, ubiquitous in green foliage wherever found in southern Florida, was heard. In summarizing we would state that Orthoptera are generally very scarce in these swamps, but certain of the species are not found elsewhere and occasionally a species is found there locally abundant. The deep shade, labyrinth of roots and presence in unpleasant numbers of mosquitoes, even as early as March, make work in these areas unusually difficult.

<sup>4</sup>For the botanical determinations in the present paper we wish to express our hearty thanks to Mr. Stewardson Brown of the Academy of Natural Sciences of Philadelphia.

<sup>5</sup>We here refer only to the red mangrove, *Rhizophora mangle*. In areas of black mangrove, *Avicennia nitida*, or open marshy flats, covered with the shoots of this tree, none of the species of Orthoptera here recorded have been encountered.

## PINE WOODS.

A great portion of the region is covered by pine woods, *Pinus caribaea*. This area is very open, the ground is extremely rough, being composed in most places of oölitic limestone and is carpeted with a large variety of low vegetation in which the wire grass and saw palmetto are everywhere found. Considerably larger series of Orthoptera could be taken in these woods during March than elsewhere, but as the majority of the species were already well known to us, but little time was given on this trip to this area. A number of interesting captures were, however, made.

## SALT MARSHES AND EVERGLADES.

These two areas were most unproductive, almost all of the abundant Tettigoniidae found in the Fall not being yet apparent, even as tiny immature individuals.

## SEA BEACHES.

But one species of Acridid is found on the sand beaches, but back of these in the halophytic vegetation, *Ipomaea pes-caprae*, *Canavalia lineata* and other plants, a number of species were encountered. Individuals of several of these were of interest in being of decidedly larger average size than material from inland situations.

## DERMAPTERA.

*Anisolabis annulipes* (Lucas). Brickell's Hammock, Miami, III, 4, 1915, (H.), 1 ♀.

*Labidura bidens* (Olivier). A crushed individual of this species was seen on the sidewalk at Miami.

*Prolabia unidentata* (Beauvois). Southside, Miami, III, 6, 1915, (H.), 4 ♀.

This species was found abundant under the dried bark of all of the logs of *Pinus caribaea* examined.

## ORTHOPTERA.

## BLATTIDAE.

*Ischnoptera deropeltiformis* (Brunner). Brickell's Hammock, Miami, III, 4 to 15, 1915, (H.; trapped in molasses jar), 2 juv. ♂.

*Blattella germanica* (Linnaeus). Common in habitations at Miami.

**Ceratinoptera diaphana** (Fabricius). Brickell's Hammock, Miami, III, 4, 1915, (H.; under loose bark on trunk of tree, *Exothea paniculata*, in dense jungle), 1 juv. ♀.

**Ceratinoptera lutea** Saussure and Zehntner. Brickell's Hammock, Miami, III, 3, 1915, (H.; on ground under luxuriant undergrowth in opening in forest), 1 ♂. Virginia Key, III, 11, 1915, (H.; in dark water-soaked leaves in heavy red mangrove swamp), 1 juv. ♂.

**Eurycotis floridana** (Walker). Brickell's Hammock, Miami, III, 4 to 15, 1915, (H.; trapped in molasses jars), 1 ♂, 2 ♀, 3 juv. ♂.

This unpleasant roach was found particularly numerous in tree cavities and under bark along the edge of the hammock. It was the only species found attracted to the molasses jars in numbers.<sup>6</sup>

**Periplaneta australasiae** (Fabricius). Southside, Miami, III, 16, 1915, (H.; a few juv. under bark of dead logs of *Pinus caribaea* in company with numbers of *Prolabia unidentata*), juv. ♀.

This is the only household pest which, in this region, appears frequently numerous outside of dwellings as well.

**Pycnoscelus surinamensis** (Linnaeus). Brickell's Hammock, Miami, III, 4, 1915, (H.), 1 juv. ♀.

In this region, the present species is ubiquitous on the ground under litter of any sort. At Musa Isle, it was found burrowing in the sand when search was being made for *Scapteriscus abbreviatus*.

**Plectoptera poeyi** Saussure.

We have a male before us in the Hebard Collection from Cocoanut Grove, Florida, taken in 1887 by E. A. Schwarz. The species has not been previously recorded from the United States except from Key West, Florida.

#### MANTIDAE.

**Stagmomantis carolina** (Johannson). Brickell's Hammock, Miami, III, 3, 1915, (H.; juv. occasional in heavy vegetation along edges of openings in hammock), 2 juv.

**Gonatista grisea** (Fabricius). Brickell's Hammock, Miami, III, 4, 1915, (H.; juv. rare on trunks of trees), 1 juv. Virginia Key, III, 11, 1915, (H.; on roots of mangrove in dense mangrove swamp), 1 juv.

<sup>6</sup> A number of specimens secured were not retained.

The latter specimen here recorded was much darker in general coloration than is normal for the young of this species.

*Oligonyx scudderi* Saussure. Southside, Miami, III, 16, 1915, (H.; undergrowth in pine woods), 1 juv. ♀.

The species has never before been recorded from a definite locality in this state.

*Thesprotia graminis* (Scudder). South of Brickell's Hammock, Miami, III, 3, 1915, (H.; undergrowth of pine woods), 1 juv. ♀. Southside, Miami, III, 6, 1915, (H.; in gallberry bushes in pine woods), 3 ♀.

#### PHASMIDAE.

*Manomera tenuescens* (Scudder). Southside, Miami, III, 6, 1915, (H.; in low bushes in undergrowth of pine woods), 1 juv. ♂, 1 juv. ♀.

*Anisomorpha buprestoides* (Stoll). Southside, Miami, III, 6, 1915, (H.; young in early stages occasional in undergrowth of pine woods), 1 juv. ♀.

#### ACRIDIDAE.

*Neotettix femoratus* (Scudder). Southside, Miami, III, 6, 1915, (H.; occasional in spots of scant vegetation in pine woods), 4 ♂, 4 ♀, 1 juv. ♀. South of Brickell's Hammock, Miami, III, 3, 1915, (H.; occasional on edge of salt marsh), 4 ♂, 2 ♀.

Of this series, three males alone are typical of *femoratus*; the others show to varying degrees the condition found in *Neotettix bolteri*, which is most strongly marked in one female. One male and four females have the pronotum caudate.

*Tettigidea spicata* Morse. Miami, III, 3 and 10, 1915, (H.; in short grass), 1 ♂, 2 ♀. Brickell's Hammock, Miami, III, 4, 15 and 16, 1915, (H.; in openings in hammock, in and on edge of red mangrove swamp), 4 ♂, 5 ♀. Cape Florida, Key Biscayne, III, 12, 1915, (H.; in red mangrove swamp), 1 ♀.

The dark bare soil along the edges of the red mangrove swamps was the situation in which the greatest number of specimens of this rather scarce species were found.

*Tettigidea lateralis lateralis* (Say). Brickell's Hammock, Miami, III, 15, 1915, (H.; dark soil on edge of red mangrove swamp), 1 ♂.

**Radnotatum brevipenne peninsulare** Rehn and Hebard. Southside, Miami, III, 6 and 16, 1915, (H.; undergrowth of pine woods), 7 ♂, 8 ♀, 1 juv. ♀. South of Brickell's Hammock, Miami, III, 3, 1915, (H.; undergrowth of pine woods), 2 ♂, 1 juv. ♂, 1 juv. ♀.

This species was everywhere found in the undergrowth of the pine woods, the majority of specimens being adult.

**Macneillia obscura** Scudder. Southside, Miami, III, 6 and 16, 1915, (H.; undergrowth of pine woods), 5 ♂, 7 ♀, 2 juv. ♂, 8 juv. ♀.

This series exhibits a wonderful diversity of the striking and beautiful color pattern and colorations found in the species, no two specimens being exactly alike but the females showing the greatest differences. Those with the very pale medio-dorsal stripe and those with green lateral markings are the most striking of these. The insect was found widely distributed through the undergrowth of the pine woods but always in few numbers.

**Amblytropidia occidentalis** (Saussure). Southside, Miami, III, 6, 1915, (H.), 3 ♂. South of Brickell's Hammock, Miami, III, 3, 1915, (H.), 2 ♂, 1 juv. ♂.

The species was not abundant in the undergrowth of the pine woods.

**Orphulella pelinda** Burmeister. North border of Brickell's Hammock, Miami, III, 4, 1915, (H.; undergrowth in live oak groves), 1 juv. ♀. Southside, Miami, III, 16, 1915, (H.; undergrowth of pine woods), 1 ♂.

But one adult of this species, which later appears in large numbers, was found.

**Arphia granulata** Saussure. Southside, Miami, III, 6 and 16, 1915, (H.), 7 ♂, 5 ♀. South of Brickell's Hammock, Miami, III, 3, 1915, (H.), 2 ♂, 1 juv. ♀.

This species was widely distributed through the undergrowth of the pine woods but always few in numbers. The males show some diversity in coloration, the females considerably more.

**Chortophaga australior** Rehn and Hebard. Miami Beach, III, 7 and 12, 1915, (H.; moderately numerous locally in halophytic vegetation along beach), 5 ♂, 6 ♀, 1 juv. ♂. North

border of Brickell's Hammock, Miami, III, 4, 1915, (H.; adults occasional, young abundant in undergrowth of live oak groves), 1 ♂. Cape Florida, Key Biscayne, III, 12, 1915, (H.), 1 very small juv. ♀.

The specimens from Miami Beach are very large for this species, a condition even more pronounced in *Aptenopedes sphenarioides clara*.

**Pardalophora phoenicoptera** (Burmeister). Southside, Miami, III, 6, 1915. (H.; undergrowth of pine woods), 1 juv. ♀.

A decided lamellation of the dorsal and ventral margins of the caudal femora is noticeable in this specimen. The coloration of the caudal limbs is very brilliant. The species was previously known from peninsular Florida only from Lakeland.

**Scirtetica marmorata picta** (Scudder). Miami Beach, III, 7 and 12, 1915, (H.; very scarce and local in sand areas back of beach proper), 3 ♂, 1 ♀, 2 juv. ♀. Southside, Miami, III, 6, 1915, (H.; one colony found in sandy area in pine woods), 3 ♂, 1 ♀. Musa Isle, III, 10, 1915. (H.; sandy soil in grapefruit grove), 1 juv. ♀.

The females from Miami Beach are unusually pinkish in general coloration with darker markings greatly reduced.

**Psinidia fenestralis** (Serville). Miami Beach, III, 7 and 12, 1915, (H.; scarce and local in sandy areas back of beach proper), 4 ♂, 3 ♀, 1 juv. ♀. Southside, Miami, III, 6, 1915, (H.; adults and young scarce in sandy spot in pine woods), 1 ♀.

**Trimerotropis acta**<sup>†</sup> new species. (Pl. XVIII, figs. 1A-1E).

1905. *Trimerotropis maritima* Caudell (not *Locusta maritima* Harris, 1841), Ent. News, XVI, p. 218. [Palm Beach, Florida.]

1914. *Trimerotropis citrina* Davis (in part not of Scudder, 1876). Jour. N. Y. Ent. Soc., XXII, p. 195. [Ocean Beach (Miami Beach), Florida.]

The present species is closely related to *T. maritima* and *T. citrina*. When compared with the former it is found to average smaller. The lateral carinae of the frontal costa are normally not as distinct below the median ocellus. The lateral lobes of the pronotum are more compressed cephalad of the principal sulcus, with the disk at this point more distinctly narrowed as a result, and with caudal margin of disk less produced, the angle being normally rectangulate. The tegmina are proportionately similar but not as long relatively when compared

<sup>†</sup> From ἀκτῆ = the strand.



with the body length; when in repose the anal fields of the tegmina are similarly deplanate with coloration normally paler and less maculate than the discoidal and marginal fields. When compared with *citrina* the present insect is found to be more robust. The frontal costa is slightly wider and also shows the same feature of the lateral carinae as given above. The lateral lobes of the pronotum are much more compressed cephalad of the principal sulcus, with disk at this point much more distinctly narrowed as a result, but with caudal margin of disk similar (in *citrina* the caudal angle of the disk is, however, more frequently slightly less than rectangulate). The tegmina in *citrina* differ in being proportionately wider and also relatively more elongate when compared with the body length, and in having the anal fields when in repose not as strikingly deplanate with coloration the same as the remaining portions. The caudal femora are similar in the two species.

The coloration and markings of this species are normally distinctive. The caudal tibiae in all of the material before us are scarlet (60% red, 40% orange), in *citrina* these portions are grenadine red (40% red, 60% orange). As in *maritima*, this species has the internal faces of the caudal femora pale yellowish with two dark bands, with genicular areas not at all or but little suffused; in *citrina* the coloration of these portions is similar but with the genicular areas normally black.

*Type*: ♀; Miami Beach, Florida. March 7, 1915. (Hebard). [Hebard Collection Type No. 405.]

*Description of Type*. Size medium, form moderately robust for the genus. Head similar to that of *maritima*,<sup>8</sup> with face even smoother and less pitted than in that species. Pronotum rather short, prozona distinctly compressed this greatest at the cephalic dorsal suture, metazona deplanate. Median carina not strongly but distinctly bicristate on the prozona, the cephalic slightly longer than the caudal crest but of equal height; of almost equal height cephalad but very gradually less prominent caudad on the metazona. Lateral carinae well developed on metazona but continued well defined by the color pattern only on metazona. Tegmina moderately elongate, proportionately narrow. Wings of much the same proportions as in *maritima*; wing band narrow but solid, with greatest width in the radiate field, 4. mm. Caudal femora as in *citrina*. Coloration distinctive.

*Allotype*: ♂; same data as type but taken March 12, 1915.

*Description of Allotype*. Very similar to type but smaller, agreeing in all other characters given except width of wing band which is in greatest width in the radiate field, 4.7 mm.

In addition to the type and allotype, the series of 34 males

<sup>8</sup> A difference in the frontal costa, discussed above, is well indicated in this specimen; this difference, though slight, is indicated in the majority of specimens of the present species before us.



and 19 females from the same locality may be considered paratypes.

*Measurements (in millimeters)*

	♂		♀		♂	♀
	ALLOTYPE	PARATYPES <sup>9</sup>	TYPE	PARATYPES	Capron, Fla.	
Length of body .....	21.8	21.7-24	27.4	27.3-31.2	20.3	28.9
Length of pronotum .....	4.4	4.4-5	5.5	5.2-6	3.9	5.4
Caudal width of pronotum...	3.7	3.6-4	4.8	4.4-5.1	3.3	4.6
Length of tegmen.....	24.3	22.6-24.4	28.	27.-30.9	22.8	29.6
Greatest width of tegmen....	3.8	3.6-4.3	4.7	4.6-5.2	3.5	5.
Length of wing .....	21.5	20.7-25	24.8	24.8-28.9	—	—
Greatest width of wing .....	11.8	11.3-13.9	13.4	13.4-15	—	—
Length of caudal femur.....	12.6	12.6-13.7	14.8	15.-16.4	12	15.2

*Coloration.* Ochraceous buff to apricot buff in general coloration. The anal fields of the tegmina are usually immaculate, occasionally weakly washed with white, rarely weakly speckled with darker buff in specimens of darkest coloration. The discoidal and marginal fields of the tegmina are of the general coloration, usually much suffused with a speckling of darker buff, these markings concentrating to form two weakly defined darker bands. The pronotum is normally greatly suffused with white except along the lateral borders of the dorsum and on the dorso-caudal portions of the lateral lobes with the characteristic small median depression very dark. The head is heavily suffused with white except for two narrow post-ocular bands. Antennae and limbs suffused with white, with two conspicuous dark bands on the caudal femora and the genicular areas of the same dark buffy. Inner faces of caudal femora yellowish, heavily twice banded with black but with genicular areas not at all or but little darkened. Caudal tibiae scarlet, this color fading to white near the proximal extremity. Wings with proximal portion marguerite yellow individually varying to reed yellow, margined distad with a broad continuous black band, this not interrupted normally except very briefly before the elongate spur. Remaining distal portion of wings hyaline with tip often weakly suffused with black. Immature individuals are even more heavily suffused with white but with color pattern (darker narrow post-ocular bars, margining of disk of pronotum and bands of caudal femora) strongly defined.

The species was found widely distributed but few in numbers everywhere along the middle and upper ocean beaches at Miami Beach. Individuals were encountered without exception on loose sand either along the landward border of the middle beach or less often immediately back of this in areas

<sup>9</sup> Of this series the two largest specimens were taken in September.

of high seaside oats, *Uniola paniculata*. At Palm Beach a few individuals were observed under similar conditions. The flight of this insect much resembles that of *maritima* and is more direct than that of *citrina*.

*Specimens examined*: 79; 38 males, 23 females, 7 immature males and 11 immature females. Capron,<sup>10</sup> IV, 10 and 19, 2♂, 1♀, [U. S. N: M.] Palm Beach, III, (A. N. Caudell), 1♂, 1♀, [U. S. N. M.]; III, 8, 1915, (H.), 1♀, 1 juv. ♂. Miami Beach, III, 7 and 12, 1915, (H.), 30♂, 17♀, TYPE, *allotype* and *paratypes*, 6 juv. ♂, 11 juv. ♀; IX, 23, 1913, (W. T. Davis), 5♂, 3♀, *paratypes*, [Davis Cln.].

***Stenacris vitreipennis*** (Marschall). Southside, Miami, III, 6, 1915, (H.; dry undergrowth of pine woods), 2♂, 1♀.

It was surprising to find these specimens in the above situation as we had hitherto always found the insect only in reeds growing out of water in swamps, marshes and sink-holes.

***Leptysma marginicollis*** (Serville). Miami Beach, III, 12, 1915, (H.; boggy depression on palmetto flats), 1♂. Southside, Miami, III, 16, 1915, (H.; dry undergrowth of pine woods), 3♂, 1♀.

The comment made upon the last species, applies to some of these specimens as well. This species, however, usually prefers reeds on boggy ground rather than those growing out of water.

***Schistocerca serialis*** (Thunberg).

*Schistocerca americana* of authors.

Drury in 1775 described and figured this species as *L[ibellula] americana*, Ill. Nat. Hist., I, p. 128, pl. xlix, fig. 2, name in index. This is preoccupied by *Libellula americana* of Linnaeus, Syst. Nat., ed. x, p. 545, 1758. The next name to apply to Drury's *L. americana* is *Gryllus serialis* of Thunberg, Mém. Acad. Imp. Sci., St. Petersburg, V, p. 241, 1815, described from St. Bartholomew, British West Indies, which name consequently must be used for this species.

Miami Beach, III, 7, 1915, (H.), 1♂. South of Brickell's Hammock, Miami, III, 3, 1915, (H.), 1♀.

This species was found occasional through the pine woods, in the hammock and frequently in considerable numbers in the vegetation back of the sea beaches.

<sup>10</sup> This refers to the abandoned Fort Capron, which was located near the present town of Viking.

**Schistocerca damnifica calidior** Rehn and Hebard. Southside Miami, III, 6, 1915, (H.; occasional through undergrowth of pine woods), 8 ♂, 1 ♀.

**Eotettix signatus** Scudder. South of Brickell's Hammock, Miami, III, 3, 1915, (H.; edge of salt marsh), 1 very small juv. ♂, 1 very small juv. ♀. Homestead, III, 17 to 19, 1910, (H.; edge of everglades), 3 very small juv. ♂.

These tiny specimens in no way resemble the adult insect, but would rather suggest the immature condition of some remarkable tropical form. The generic status is, however, certain from specimens before us showing other immature instars, and, as *signatus* is very abundant in this region and situation later in the season and the only species of the genus known from southern Florida, there seems little doubt of the proper specific identity.

**Melanoplus puer** Scudder. Miami Beach, III, 7 and 12, 1915, (scarce and local in beach vegetation back of strand), 4 ♂, 2 ♀. Southside, Miami, III, 6 and 16, 1915, (H.; widely distributed and locally common in undergrowth of pine woods), 14 ♂, 8 ♀. Virginia Key, III, 11, 1915, (H.; in beach vegetation back of strand), 1 ♀. Cape Florida, Key Biscayne, III, 12, 1915, (H.; back of beach in low strand vegetation), 1 very small juv. ♂.

The specimens from Miami Beach average slightly larger than those from the mainland.

**Paroxya atlantica atlantica** Scudder. Southside, Miami, III, 16, 1915, (H.; adults occasional, young abundant in undergrowth of pine woods near hammock), 1 ♂, 1 ♀. South of Brickell's Hammock, Miami, III, 3, 1915, (H.), 2 ♂, 1 ♀.

**Aptenopedes sphenarioides clara** Rehn.<sup>11</sup> Miami Beach, III, 7 and 12, 1915, (H.; adults locally common, young in early stages generally more numerous, back of beach in low strand vegetation), 16 ♂, 12 ♀, 1 juv. ♂, 1 juv. ♀. Southside, Miami, III, 6, 1915, (H.; occasional in undergrowth of pine woods), 2 ♂, 3 ♀, 2 juv. ♂, 1 juv. ♀. Brickell's Hammock, Miami, III, 3, 1915, (H.; luxuriant undergrowth in opening of ham-

<sup>11</sup> Study of other Floridian geographic races and the large series of this insect in the collections before us offers convincing evidence of the racial status of *clara*. It is our opinion that absolutely intermediate material, proving this relationship, will be found in north central Florida when that region is investigated.

mock), 1 very small juv. ♂. Virginia Key, III, 11, 1915, (H.; back of strand in low beach vegetation), 1 juv. ♂. Cape Florida, Key Biscayne, III, 12, 1915, (H.; luxuriant vegetation in clearing), 1 ♂.

This series is of particular interest, owing to the added evidence which we have from it on the decided size variation in this race, due wholly to local environmental conditions. Males previously taken on Key Biscayne and the present specimen from that locality average decidedly larger than any other series we have seen, while the material from Miami Beach also averages distinctly larger than that from the pine woods near Miami.

*Measurements (in millimeters)*

♂	Length of body	Length of pronotum	Length of tegmen	Length of caudal femur
Miami Beach (16).....	22.-24	4.2-4.8	3.7-4.7	11.8-13
Southside, Miami (2).....	20.3-21.7	3.9-4.1	4.1-4.4	11.3-11.7
Key Biscayne (3).....	25.3-27.4	5.2-5.8	5.6-5.9	14.3-16
♀				
Miami Beach (12).....	30.-34.9	5.7-6.7	5.2-5.6	14.-17.3
Southside, Miami (3).....	26.-26.7	5.1-5.2	4.7-5	12.9-13.7
Key Biscayne (3).....	31.7-34.3	6.1-6.8	5.8-6.8	14.6-16.9

The males before us are all green, or green suffused with reddish. The females exhibit wood brown, ferruginous brown and green color phases.

**Aptenopedes aptera** Scudder. Southside, Miami, III, 6 and 16, 1915, (H.; occasional especially about low bushes in undergrowth of pine woods), 3 ♀, 3 small juv. ♂, 1 juv. ♀.

One of these females is as large as any of the species we have seen; length of body 33; of pronotum 7.7, of caudal femur 15.9 mm.

EXPLANATION OF PLATE XVIII.

- Fig. 1A. *Trimerotropis acta* new species. Miami Beach, Fla. Female (TYPE). Lateral view. (X1½).
- Fig. 1B. The same. Cephalic outline of head. (X2).
- Fig. 1C. The same. Lateral outline of pronotum. (X2).
- Fig. 1D. The same. Figure of tegmen and wing. (X1½).
- Fig. 1E. *Trimerotropis acta* new species. Miami Beach, Fla. Male (allotype). Figure of tegmen and wing. (X1½).
- Fig. 2A. *Oligacanthopus prograptus* Rehn and Hebard. Miami, Fla. Male (allotype). Dorsal view. (X4).
- Fig. 2B. The same. Head, cephalic aspect. (Greatly enlarged).